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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/524,050

02/08/2005

Ian Ralph Collins

608-448

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EXAMINER

SUCHFIELD, GEORGE A

ART UNIT

PAPER NUMBER

3676

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|-----------|---------------|
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3 MONTHS

01/11/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/524,050

Applicant(s)

COLLINS ET AL.

Examiner

George Suchfield

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 26-63 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 26-30 and 34-48 is/are allowed.
- 6) ☒ Claim(s) 31-33 and 49-63 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 2/8/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

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The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

1. It is recommended that applicant amend the specification to incorporate the subtitles and/or sections, as set forth above.
2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

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3. The use of the trademark Calnox ML3263 and Baker Petrolite has been noted in this application, e.g., in page 14. It should be capitalized wherever it appears and be accompanied by the generic terminology. More specifically, no generic terminology has been provided for either trademark. By contrast, Barazad D is clearly identified in page 17 as comprising xanthan gum.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 31-33 and 63 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131

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USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 31 recites the broad recitation “a first aqueous fluid” and “a second aqueous fluid”, respectively, and the claim also recites “(hereinafter “polymer slug”)” and “(hereinafter “crosslinking agent slug”)”, respectively which is the narrower statement of the range/limitation. In this regard, it is not understood why applicant doesn’t simply recite, e.g., -- a first aqueous fluid comprising a polymer slug -- .

Claim 31 is further indefinite and/or comprises an improper dependent claim is calling for the sequential injection of one or more of the components of the “gelling composition”. In this regard, parent claim 28 and/or independent claim 26 clearly call for injecting a gelling composition which includes therein all the said components in a single admixture. Thus, claim 31 recites an alternative to claim 28 and/or 26, rather than including all the limitations of the parent claim(s) and then specifying a further limitation.

Claims 32 and 33 are similarly indefinite insofar as they depend from claim 31, and are themselves directed to alternative embodiments of parent claims 28 and 26.

Claim 63 is deemed to comprise an improper method claim, and is therefore indefinite, in that it fails to include at least one positively recited method step. In this regard, the term “Use of” is not deemed to comprise or define a positively recited step.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claim 49-51 and 54-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pakulski et al (2004/0231848 A1).

Pakulski et al (note Para's [0010], [0014], [0017], [0020], [0027] – [0037]) discloses a gelling composition for use in treating a well comprising an aqueous liquid, an "oil field or gas fluid production chemical", such as a gas hydrate inhibitor, and a gellable polymer. Insofar as Pakulski et al (Para [0020]) may further include a breaking agent for subsequent breaking of the gel, the gelling composition of Pakulski is further deemed to comprise a "delayed release" gelling composition, as broadly recited in independent claim 49.

As noted in Para [0017], a crosslinking agent may further be included in the gelling composition such that, in one embodiment, gelation or gel formation "does not occur until the desired time". Accordingly, it would have been an obvious matter of choice or design, to one of ordinary skill in the art to which the invention pertains, to provide such "desired time" or a "rate" of gelation of "longer than 1 hour", as called for in claim 49, based on, e.g., the characteristics of the well environment and/or characteristics and parameters, such as the depth, temperature

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and/or pressure of the subterranean formation(s) actually encountered in the field and/or result of routine experimentation for process optimization or economic feasibility.

As per claim 50, 51, as noted above with respect to claim 49, the gelling composition of Pakulski et al includes a crosslinking agent and a gas hydrate inhibitor.

As per claim 54, the gellable polymer may comprise one or more of those recited, with the amount or range of gellable polymer recited in claim 55 falling within the corresponding range(s) of Pakulski et al (noted Para. [0015]).

As per claim 56, Pakulski et al (note Para [0019]) may further include a buffering agent, i.e., “acid buffer” in their gelling composition, with the amount or range of buffering agent recited in claim 57 deemed an obvious matter of choice or design, based on, or dictated by, the well environment and/or subterranean formation parameters and/or characteristics, as actually encountered in the field.

As per claim 58, the crosslinking agent may comprise one or more of those recited, with the amount or range of crosslinking agent recited in claim 59 falling within the corresponding range(s) of Pakulski et al (noted Para. [0017]).

As per claim 60, the amount or range of gas hydrate inhibiting agent or “production chemical” recited appears encompassed by, or falls within, the corresponding range of Pakulski et al (note Para [0040]).

As per claim 61, as noted above with respect to claim 49, the gelling composition of Pakulski et al includes a gel breaker, with the amount or range of gel breaker recited in claim 62 deemed an obvious matter of choice or design, based on, or dictated by, the exact composition of

the gelling composition utilized, and/or the well environment and/or subterranean formation parameters and/or characteristics, as actually encountered in the field.

As per claim 63, upon complete crosslinking or gelation of the gelling composition, i.e., upon “the desired time” (note discussion regarding claim 49), the resulting gelled composition, which then enters the formation pores or matrix to accomplish the well treating process of Pakulski et al, is deemed to necessarily or inherently “encapsulate” the production chemical or hydrate inhibitor, as broadly recited in claim 63, insofar as such production chemical will be contained within, i.e. encapsulated by, the resulting gel matrix.

9. Claim 52 rejected under 35 U.S.C. 103(a) as being unpatentable over Pakulski et al (2004/0231848 A1) as applied to claim 49 above, and further in view of Snively et al (4,779,679).

Pakulski et al (Note Para’s [0016], [0025]) discloses that other inhibitors conventional in the art, such as corrosion, scale or wax inhibitors, may also be included in their gelling composition. Snively et al (note col. 6, lines 12-40) discloses the use of a scale and/or corrosion inhibitor for treating a well and/or subterranean formation(s) which is of a particle size of less than 10 microns.

Accordingly, with respect to claim 52, it would have been obvious to one of ordinary skill in the art to which the invention pertains, to further include the exemplary scale and/or corrosion inhibitor of Snively et al in the gelling composition of Pakulski et al, in order to inhibit scale and/or corrosion within the well and/or subterranean formation(s) treated.

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10. Claims 52 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pakulski et al (2004/0231848 A1) as applied to claim 49 above, and further in view of Bates et al (6,380,136).

Pakulski et al (Note Para's [0016], [0025]) discloses that other inhibitors conventional in the art, such as corrosion, scale or wax inhibitors, may also be included in their gelling composition. Bates et al (note col. 16, lines 5-53) discloses the use of a coated scale and/or corrosion inhibitor for treating a well and/or subterranean formation(s) which is of a particle size of less than 10 microns.

Accordingly, with respect to claims 52 and 53 it would have been obvious to one of ordinary skill in the art to which the invention pertains, to further include the exemplary coated scale and/or corrosion inhibitor of Bates et al in the gelling composition of Pakulski et al, in order to inhibit scale and/or corrosion within the well and/or subterranean formation(s) treated.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Other cited references disclose compositions and/or methods of treating a subterranean formation or penetrating well(s) utilizing gelling agents and/or scale/corrosion inhibitors.

12. Claims 31-33 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

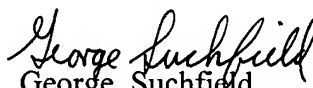
13. Claims 26-30 and 34-48 are allowed.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Suchfield whose telephone number is 571-272-7036. The examiner can normally be reached on M-F (6:30 - 3:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Glessner can be reached on 571-272-6843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


George Suchfield
Primary Examiner
Art Unit 3676

Gs

January 6, 2007